AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Previously Presented) A device for processing data recorded on an optical recording medium, comprising:

a pickup unit to detect a signal reflected from the optical recording medium, the optical recording medium including data formed in a marked phase and an unmarked phase, a minimum length of the marked phase or unmarked phase being shorter than 3T, T being a channel bit clock; and

a signal processor to process the signal output from the pickup unit, thereby to output a binary signal which includes data corresponding to the minimum length.

2. (Previously Presented) A recording medium comprising:

a recording layer; and

data recorded in a marked phase and an unmarked phase on the recording layer,

wherein a minimum length of the marked phase is shorter than 3T, T being a channel bit clock.

3. (Previously Presented) The recording medium of claim 2, wherein the minimum length of the marked phase is 2T.

4. (Cancelled).

5. (Previously Presented) The device of claim 1, where the signal processor includes:

a signal detector to detect a high-frequency signal reproduced from the pickup unit, to convert the high-frequency signal into a binary signal by comparing the reproduced signal with a reference signal, and to output the binary signal;

a data converter to synchronize a reference clock with the binary signal from the signal detector and to restore the binary signal from the signal detector into a bit stream using the synchronized reference clock; and

a demodulator to restore the bit stream into original data.

6. (Previously Presented) The device of claim 5, wherein the signal detector includes:

a comparator to compare the reproduced signal with at least two reference signals and to output a plurality of binary signals; and

a selector to select one of the plurality of binary signals.

7. (Previously Presented) The device of claim 1, wherein the minimum length of the marked phase is 2T.

8. (Previously Presented) A method for reproducing data recorded in an optical recording medium, comprising the steps of:

(a) converting a high-frequency signal reproduced from the optical recording medium into a binary signal by comparing the reproduced signal with a reference signal, the high-frequency signal including a signal corresponding to a minimum length of mark or space, the minimum length of the mark or space being shorter than 3T, T being a channel bit clock; and

(b) synchronizing a reference clock with the binary signal and restoring the binary signal into a bit stream using the synchronized reference clock.

9. (Previously Presented) The method of claim 8, wherein the minimum length of the mark or space is 2T or is shorter than the radius of a beam spot.

10. (Previously Presented) The method of claim 8, wherein the step (a) comprises the steps of:

(a1) comparing the reproduced signal with a plurality of reference signals and outputting a plurality of binary signals based on the comparison results; and

(a2) selecting one of the plurality of binary signals.

11. (New) The method of claim 8, wherein the minimum length of the mark or space is 1.5T.

12. (New) The device of claim 1, wherein the minimum length of the marked phase is 1.5T.

13. (New) The device of claim 1, wherein the minimum length of the marked phase is shorter than a radius of a beam spot.

14. (New) The recording medium of claim 2, wherein the minimum length of the marked phase is 1.5T.

15. (New) The recording medium of claim 2, wherein the minimum length of the marked phase is shorter than a radius of a beam spot.